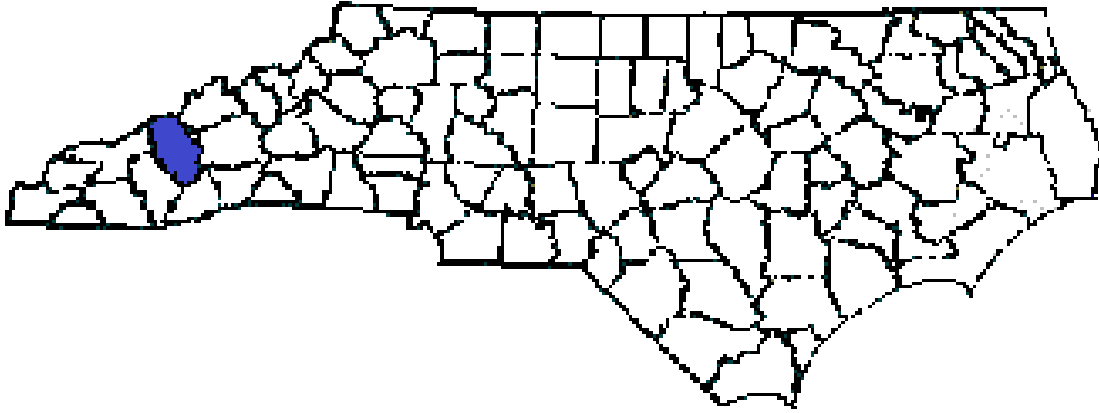


ANNUAL REPORT FOR 2016



**West Fork Pigeon River Site
Haywood County
TIP No. B-3187
Biological Opinion**



Prepared By:
Natural Environment Section & Roadside Environmental Unit
North Carolina Department of Transportation
August 2016

TABLE OF CONTENTS

SUMMARY	1
1.0 Introduction	2
.1 Project Description	2
.2 Purpose	2
.3 Project History	2
2.0 Vegetation:	3
.1 Success Criteria	3
.2 Description of Species	3
.3 Results of Vegetation Monitoring	3
.4 Conclusions.	4
3.0 Overall Conclusions and Recommendations	4

FIGURES

Figure 1 – Site Location Map	5
------------------------------------	---

APPENDICES

Appendix A – Site Photos

Appendix B – Plan Sheets

SUMMARY

The West Fork Pigeon River Site is located in Haywood County. The site was planted in January 2013 per the conditions stated within the Biological Opinion.

Locations where the riparian area is disturbed shall be re-vegetated with native woody species. Riparian plantings will be monitored annually for a period of 5 years after planting. If there is less than a 75 percent survival rate then the riparian area will be replanted.

After the fourth year of monitoring, the West Fork Pigeon River Site revealed an average tree density of 595 trees per acre. This average is above the 75 percent survival rate (510 trees per acre) required by the Biological Opinion.

NCDOT proposes to continue monitoring the planted vegetation at the West Fork Pigeon River Site in 2017.

1.0 INTRODUCTION

1.1 Project Description

The West Fork Pigeon River Site is located at Bridge No. 79 over West Fork Pigeon River on SR 1112 (Chambers Farm Rd) (Figure 1). The site consists of riparian plantings that will be monitored annually for a period of 5 years after planting to ensure that no less than 75 percent survival is achieved.

1.2 Purpose

In order for this site to be considered successful, the site must meet the success criteria. This report details the monitoring in 2016 at the West Fork Pigeon River Site.

1.3 Project History

January 2013	Site Planted
August 2013	Vegetation Monitoring (Year 1)
July 2014	Vegetation Monitoring (Year 2)
July 2015	Vegetation Monitoring (Year 3)
February 2016	Supplemental Planting
July 2016	Vegetation Monitoring (Year 4)

2.0 VEGETATION: WEST FORK PIGEON RIVER SITE (YEAR 4 MONITORING)

2.1 Success Criteria

Per the Biological Opinion, the riparian plantings will be monitored annually for a period of 5 years after planting. If less than 75 percent survival then, the riparian area will be replanted.

2.2 Description of Species

The following tree species were planted in the Riparian Area:

Platanus occidentalis, American Sycamore

Liriodendron tulipifera, Yellow Poplar

Fraxinus pennsylvanica, Green Ash

Quercus rubra, Northern Red Oak

2.3 Results of Vegetation Monitoring

Plot #	American Sycamore	Yellow Poplar	Green Ash	Northern Red Oak	Total (Year 4)	Total (at planting)	Density (Trees/Acre)
1	7	8	15	5	35	40	595
Year 4 Average Density							595
Year 3 Average Density							595
Year 2 Average Density							595
Year 1 Average Density							595

Site Notes: It was brought to NCDOT's attention that a small portion of the planted trees along Lake Logan Road were mowed by an adjacent landowner in 2015. Since this has occurred, the landowner has been made aware of the planted trees and additional markers and signs have been installed. The majority of the trees that were mowed have re-sprouted. A supplemental planting was completed in February 2016 for the trees that did not survive.

2.4 Conclusions

After the fourth year of monitoring, the 2016 vegetation monitoring of the site revealed an average density of 595 trees per acre. This average is above the minimum success of 510 trees per acre (75% survival).

3.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

NCDOT proposes to continue vegetation monitoring at the West Fork Pigeon River Site in 2017.



Figure 1. Site Location Map

APPENDIX A

SITE PHOTOS

West Fork Pigeon River Site



Photo Point #1



Photo Point #2

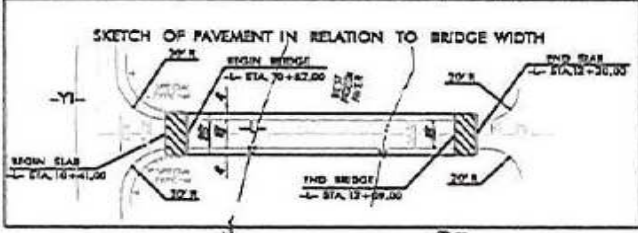
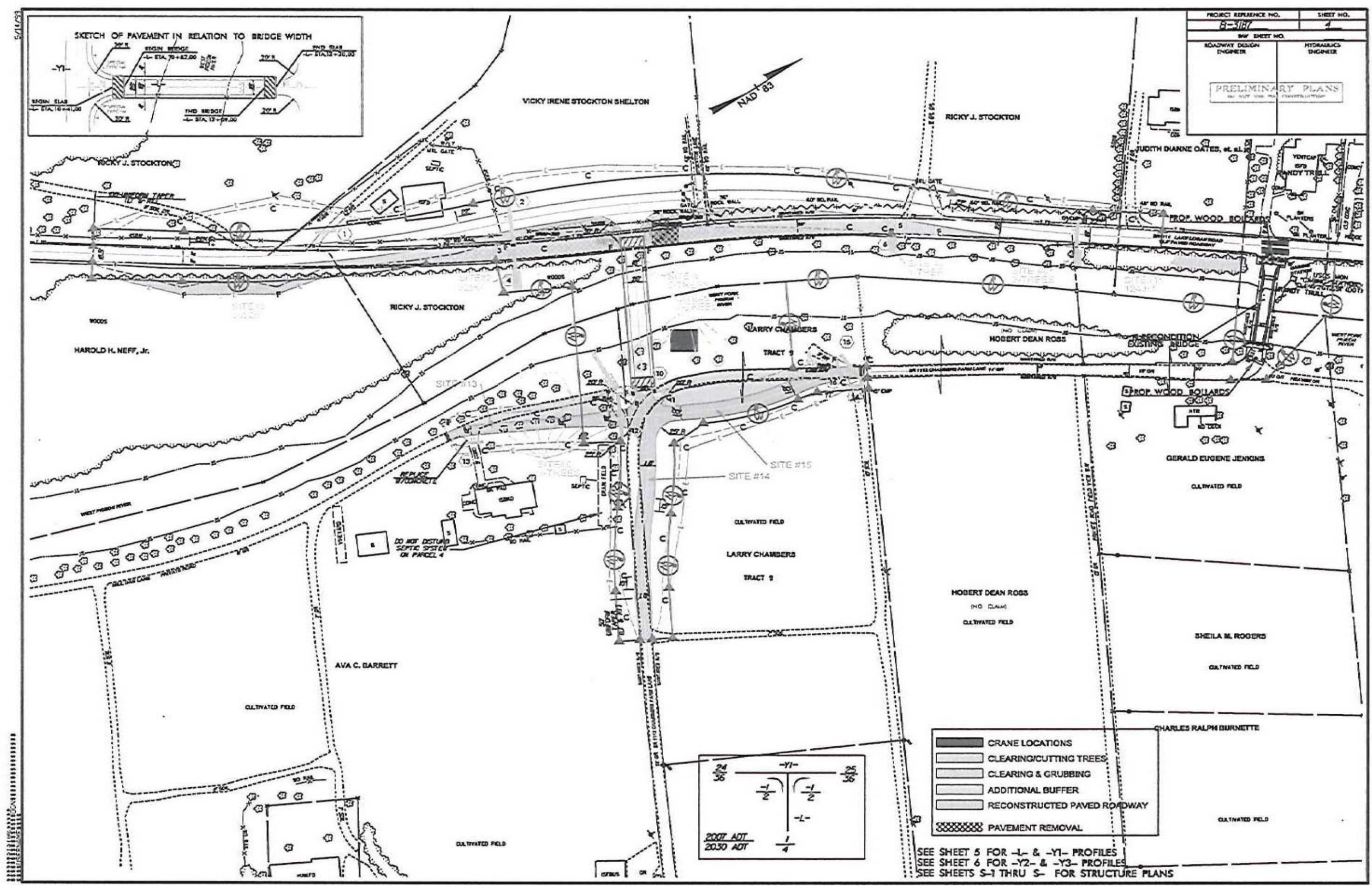


Photo Point #3

July 2016

APPENDIX B

PLAN SHEETS



PROJECT REFERENCE NO.	SHEET NO.
H-3187	4
BY SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
DO NOT USE FOR CONSTRUCTION	

- CRANE LOCATIONS
- CLEARING/CUTTING TREES
- CLEARING & GRUBBING
- ADDITIONAL BUFFER
- RECONSTRUCTED PAVED ROADWAY
- PAVEMENT REMOVAL

